

CLAIMS

What is claimed is:

1. A system for performing write journal storage on a bus interface controller, comprising:
 - a bus interface controller;
 - a write journal memory on the bus interface controller; and
 - an external power source for providing power to the write journal memory, the external power source being located externally with respect to the bus interface controller.
2. The system of Claim 1, wherein the bus interface controller is a Small Computer System Interface (SCSI) controller board.
3. The system of Claim 2, wherein the write journal memory is a random access memory (RAM).
4. The system of Claim 3, wherein the external power source is a battery.
5. The system of Claim 3, wherein the external power source includes an electrolytic capacitor.
6. The system of Claim 3, wherein the external power source is provided from an alternating current to direct current (AC to DC) converter.
7. The system of Claim 6 wherein power to the AC to DC converter is provided through a 110 volt, 60 Hertz alternating current power source.

8. The system of Claim 1, wherein the internal memory is part of a bus interface controller integrated circuit chip located on the bus interface controller.

9. The system of Claim 1, wherein the bus interface controller is a printed circuit board that has a bus interface controller integrated circuit chip and an internal memory chip.

10. The system of Claim 4, wherein the battery supplies power to the internal memory only when bus interface controller power is turned off.

11. The system of Claim 4, wherein the battery supplies power to the internal memory only when there is valid write journal memory and bus interface controller power is off.

12. A method for maintaining a write journal in an operating state, comprising:
logging write information to a real data disk and to a redundant data information disk in a memory internal to a bus interface controller unit; and
if power is shut off to the bus interface controller unit, providing power to the internal memory through an external power source.
13. The method of Claim 12, wherein logging write information includes recording completed and incomplete write operations to the real data disk and the redundant data information disk in the internal memory.
14. The method of Claim 12, wherein logging write information includes recording completed write operations to the read data disk and the redundant data information disk in the internal memory.
15. The method of Claim 12, wherein logging write information includes recording incomplete write operations to the read data disk and the redundant data information disk in the internal memory.
16. The method of Claim 12, further comprising deleting logged write information from the internal memory when all writes complete.
17. The method of Claim 12, further comprising determining a power fault condition.
18. The method of Claim 17, further comprising, if a power fault conditioned is determined, then waiting for power restoration.

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19. The method of Claim 18, further comprising, if power is restored after a power fault condition, then determining if entries remain in the write journal.
20. The method of Claim 19, further comprising, if entries are determined to remain in the write journal, processing any incomplete commands.

21. A system for maintaining a write journal on a bus interface controller board, comprising:

means for controlling a bus interface located on a bus interface controller board;

means for logging a write journal of write activity for a storage device, the means for logging a write journal being located on the bus interface controller board; and

means for supplying power to the means for logging a write journal, the means for supplying power being external to the bus interface controller board.

22. The system of Claim 21, wherein the means for controlling a bus interface controls a Small Computer System Interface (SCSI).

23. The system of Claim 21, wherein the means for controlling a bus interface controls a Peripheral Component Interconnect (PCI) interface.

24. The system of Claim 21, wherein the storage device is a disk drive.

25. The system of Claim 21, wherein the storage device is a Redundant Array of Independent Disks (RAID).